SMIL Module

USERGUIDE

Gateway®

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CHAPTER 1

SMIL Hardware and Interface

- Server Management Interface LCD (SMIL)
- Updating the firmware

Server Management Interface LCD (SMIL)

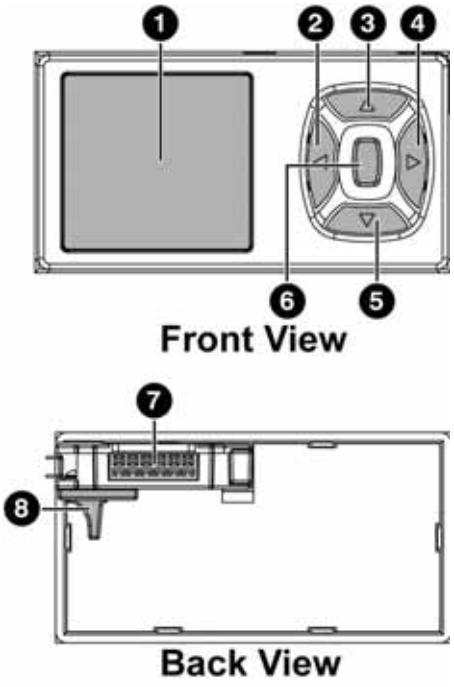
The optional Server Management Interface LCD (*SMIL*) provides an intelligent panel for the server and lets you configure the server, monitor system status, and control the server from the panel. The SMIL panel has its own microcontroller and is independent of the operating system. Its color LCD display provides information directly from the Baseboard Management Controller (BMC).

SMIL features

SMIL features include:

- Hot-pluggable device support
- Color LCD screen
- Real time system status display
- System configuration capability
- Multi-server management
- 30° up or down swivel

SMIL module - Hardware



#	Feature	#	Feature
1	LCD panel	5	D key
2	A key	6	OK key
3	B key	7	SMIL connector
4	C key	8	Release tab

SMIL module - Interface

You can operate the SMIL through the five function keys on the navigation keypad. The function of these five keys is shown below:

- B and D — move cursor up and down, show last and next information, move between menu items, or change the current character selection in the input field.
- A—delete the character being input or move from one input field to another.
- C—enter a space during character input or move from one input field to another.
- OK—choose the selected option, reconfirm the (administrator) command (such as reset), input a menu selection, enter an input screen, or return to the upper level menu.

Press the Right, Left, Up, or Down key to exit the Idle screen and go to the initial menu.

Updating the firmware

To update the firmware:

1. Download the firmware package from support.gateway.com.
2. Unzip the firmware package, then follow the instructions in the readme.txt file.

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CHAPTER 2

Installing the SMIL Module

- Installing and removing the SMIL module
- Troubleshooting

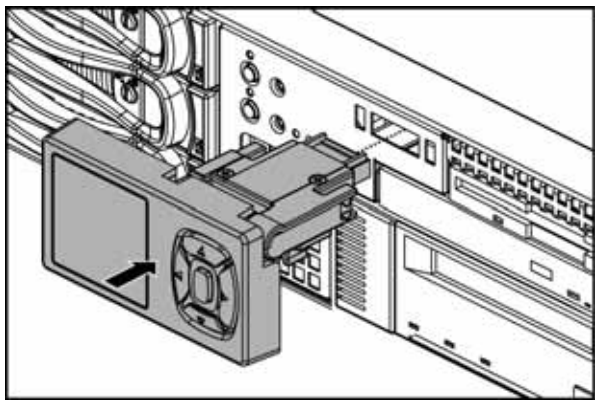
Installing and removing the SMIL module

The SMIL module is hot-swappable, so it is not necessary to power off the server when you install or remove the SMIL module. Installation and removal procedures are identical on all server with which the SMIL module is compatible. For the exact location of the SMIL module on each type of server chassis, please refer to its corresponding user manual. For your reference, the following is an example of installing the SMIL module on a 2U server chassis.

Important
The server shown in these illustrations may look different than your server, but the installation procedure is the same, except where noted.

To install the optional SMIL module:

1. Unlock the bezel (if necessary) and remove it by pulling it straight out from the front of the chassis (depending on your server, this may not be necessary).
2. Plug the SMIL module into the opening on the front of the server (the opening is covered by a spring-loaded door), making sure that the plug is seated firmly in the bay.



3. Adjust the angle of the SMIL for easy access.

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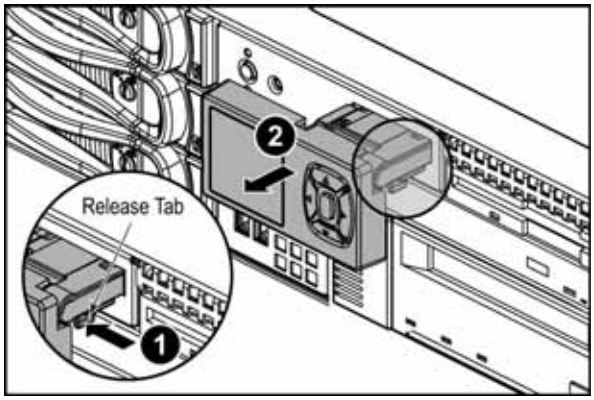
To remove the SMIL module:

1. If the bezel is installed, unlock it (if necessary) and remove it by pulling it straight out from the front of the chassis (depending on your server, this may not be necessary).
2. Press the release tab (1) on the bottom of the SMIL module, then pull the SMIL module from the front of the server (2). Pushing the release tab also interrupts the signal to the module.



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Troubleshooting

- If you keep getting a message that the module is “Disconnecting” and rebooting, it indicates that the module is not fully seated or that the release lever is pushed to the left. Make sure that the module is fully seated (by pushing in on the module), then pull the release lever toward right to make sure that it is latched.
- When you turn off your E-9422R or E-9522R server, the SMIL module may lock up. If that happens, unplug the module and power up the server, then plug the module back in.

CHAPTER 3
SMIL Applications

- SMIL screens and menus

SMIL screens and menus

This chapter provides the details of Idle state, and the various menus, setup, Booting screen, and the rotation of the LCD.

Idle state

The following table shows the SMIL Idle state information:

Menu	Options	Description
Idle state When the SMIL does not get any input from the keypad for 30 seconds, it enters Idle state. While in Idle state, it can send a Get SEL Time Command (28h 48h) to get time from the BMC after BIOS set BMC timing. Press any key to leave Idle state and enter Menu state.	Logo Model name System time System status icons– System Power status– 	Steady blue - S0-S1 status normal. Steady red - S0-S1, and redundant power supply degraded. Blinking blue/red at 1 Hz - S2-S4 (Sleep mode). Steady gray - S5 (power off).
	System Identification– Note: When the SMIL receives a remote identification command, the whole screen is in alternate inverse video mode every other second until any key is pressed or the remote identification command is turned off.	On blue- Identification mode on. On gray - Identification mode off.
	System Fault (includes power and fan): 	Steady red - cold repair fault. Blinking red - hot repair fault. Steady gray - no fault.
	Fan Fault– 	Steady red - fan failure. Steady gray - no fault.

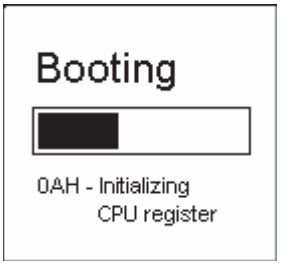
Commands providing information to the Idle screen:

- System Power Status: Get ACPI Power State Command (18h 07h)
- System Identification: Get Chassis Status Command (00h 01h)
- System Fault: Using Get Sensor Reading Command (10h 2Dh) to get the system health via sensor number of OEM SDR.
- Fan Fault: Using Get Sensor Reading Command (10h 2Dh) to get the fan situation via sensor number of OEM SDR.
- Module name: Using OEM Command to get Module name.
- System time: Get SEL Time Command (28h 48h).

Menus and setup

The SMIL menu includes three options. They are the *System Info* menu, the *Setup* menu, and the *Commands* menu. Reverse color indicates the current selection. The **Quit** command returns you to the Idle screen.

Menu	Options	Description
Initial menu	System Info Setup Commands Quit	Quit command takes you back to the idle screen.
System Info	Version Configuration POH Temperatures Fan speeds Voltages Logging Back	▪ The Version screen shows the BMC Version [Get Device ID Command (18h 01h)], SMIL Version, and BIOS Version [Read FRU Data Command (28h 11h)]. ▪ Configuration shows the results of the Read FRU Data Command (28h 11h). For example: The number of CPUs, the number of DIMMs, and so on. ▪ POH shows the results of the get POH Counter Command (00h 0Fh). This option is used to show the system operating (S0) power-on hours. It shows minute per count, days, hours, and minutes. ▪ Temperatures/Fan speeds/Voltages - The three functions search byte 13th of the SDR Type 01h to find the sensor number which belongs to temperature, fan tachometry, or voltage. It then uses the sensor number and the Get Sensor Reading Command (10h 2Dh) to get the current value. The SDR information is set during SMIL initialization. These options will not return to the Idle screen automatically, even if the timer is over 30 seconds. (“D.C.” is Degree Centigrade and “V” is Voltage). ▪ Logging displays the results of the Get SEL Entry Command (28h 43h). It gets the number of log entries in the SEL from Get SEL Info Command (28h 40h). This is available in hexadecimal or readable text. Note: The exact number of sensors are discovered by IPMI.
Setup	BMC IP address BMC password Boot options Clear log Back	▪ BMC IP address - The Set LAN Configuration Parameters Command (30h 01h). Parameter #3 is IP Address. You can select the channel number after entering this option. After entering the IP setting, you can use “up” button to increase number or “down” button to decrease number. ▪ BMC password - The Set User Password Command (18h 47h). Searches every channel that can establish a session and uses the Get User Access Command (18h 44h) to get the maximum number of User IDs. You can select the “User ID” and “Password Format” after entering this option. ▪ Boot options - The Set System Boot Options Command (00h 08h). Parameter #5 is boot flags that can be used for boot device selection. (The setting will not be preserved after BMC loses standby power or doing cold reset). After setting, the SMIL firmware sends a Chassis Control Command (00h 02h) for a system power cycle. There are four Boot Options: boot from HDD, boot from CD, boot into BIOS Setup, and boot from Primary removable media. ▪ Clear log - Reserve SEL Command (28h 42h) and clear SEL Command (28h 47h). This option is used to Clear SEL of BMC.

Commands	Toggle ID Power Down Power on Power cycle System Reset BIOS Reset BMC Rest NMI Back	▪ Toggle ID - The Chassis Identify Command (00h 04h). The Get Chassis Status Command (00h 01h) is sent to check the Chassis UID state before triggering the UID. After choosing this option, the UID will be turned off when UID is temporary on or forced on. Conversely, the UID will be turned on when UID is off. ▪ Power Down/Power on/Power cycle/System Reset/NMI - Sends Chassis Control Command (00h 02h). ▪ BIOS reset - Clears the CMOS of BIOS. The Set System Boot Options Command (00h 08h), Parameter #5, has boot flags that can be set to clean the CMOS. (The setting will not be preserved after the BMC loses standby power or after a cold reset.) After setting, the SMIL firmware sends a Chassis Control Command (00h 02h) for a system power cycle. ▪ BMC reset - The Cold Reset Command (18h 02h). Used to reset the BMC, which re-initializes sensors and pins. ▪ NMI - Non Masking Interrupt. Use to step through the software debug check points
System Boot screen		During the system boot, the SMIL shows the boot progress and (major) POST codes with a short explanation. If the system hangs, the boot screen stops at the appropriate POST code. BMC Initialization will trigger SMIL reset. During BMC Initialization the SMIL will not accept any input from the keypad.
BMC Reset		The screen shows the process during BMC reboot.

Rotating the LCD screen

The SMIL module can be turned and used in either the vertical or horizontal orientation. When the SMIL module is in the horozontal (default) position, and you press the left and right (A and C) keys simultaneously during idle status, the direction of the display on the LCD (and the key designation) will be switched from horizontal to vertical. The operation of vertical SMIL module is identical with the horizontal. To rotate the display back to horizontal, press the left and right (now B and D) keys simultaneously.

Key designations in horizontal (default) mode

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7565 Irvine Center Drive
Irvine, CA 92618-2930 USA

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